CLAIMS

1. A nonwoven fabric characterized by being an aggregate of filaments composed of a thermoplastic polymer, and by having a mean fiber size of 0.1-20 μm, wherein any given lateral cross-section of the filaments is an irregular shape, and a mean apparent density in the range of 10-95 kg/m^3.

2. A nonwoven fabric according to claim 1, wherein said irregular shape is at least one type selected from the group consisting of fine pits on the filament surfaces, fine protrusions on the filament surfaces, pits formed in a linear fashion in the fiber axis direction on the filament surfaces, protrusions formed in a linear fashion in the fiber axis direction on the filament surfaces and micropores in the filament surfaces.

3. A nonwoven fabric according to claim 1, wherein the mean fiber size is 0.1-5 μm.

4. A nonwoven fabric according to claim 1, wherein the nonwoven fabric thickness is 100 μm or greater.

5. A nonwoven fabric according to claim 1, wherein the thermoplastic polymer is a polymer which is soluble in a volatile solvent.

6. A nonwoven fabric according to claim 5, wherein the thermoplastic polymer which is soluble in a volatile solvent is an aliphatic polyester.

7. A nonwoven fabric according to claim 6, wherein the aliphatic polyester is polylactic acid.

8. A nonwoven fabric according to claim 5, wherein the volatile solvent is a mixed solvent comprising a volatile good solvent and a volatile poor solvent.

9. A nonwoven fabric according to claim 8, wherein the ratio of the volatile poor solvent and volatile good solvent in said mixed solvent is in the range of (23:77) to (40:60), based on weight.

10. A nonwoven fabric according to claim 8, wherein the volatile good solvent is a halogen-containing hydrocarbon.

11. A nonwoven fabric according to claim 8, wherein the volatile poor solvent is a lower alcohol.

12. A nonwoven fabric according to claim 11, wherein the lower alcohol is ethanol.

13. A process for production of a nonwoven fabric, which comprises a step wherein a thermoplastic polymer is dissolved in a mixed solvent composed of a volatile good solvent and a volatile poor solvent, a step wherein the resulting solution is spun by an electrospinning method and a step wherein a nonwoven fabric accumulated on a collecting sheet is obtained, which process yields a nonwoven fabric with a mean fiber size of 0.1-20 μm, wherein any given lateral cross-section of said filaments is irregular, and a mean apparent density in the range of 10-95 kg/m^3.

14. A process for production of a nonwoven fabric according to claim 13, wherein the ratio of the volatile poor solvent and volatile good solvent in said mixed solvent is in the range of (23:77) to (40:60), based on weight.

15. A process for production of a nonwoven fabric according to claim 13, wherein the volatile good solvent is a halogen-containing hydrocarbon.

16. A process for production of a nonwoven fabric according to claim 13, wherein the volatile poor solvent is a lower alcohol.

17. A process for production of a nonwoven fabric according to claim 16, wherein the lower alcohol is ethanol.